

REMARKS

The Examiner is respectfully requested to reconsider his rejection of Claims 6-8, 10-11, 14-15 and 20-21 under 35 U.S.C. §103(a) as being unpatentable over Fukuhara, et al. (U.S. Patent 5,776,585).

Stated in general terms, the Examiner contends in the aforementioned Official Action that Fukuhara, et al. meets all of the elements of Applicant's claim 20 except that it does not expressly teach addition of a 20 - 50% increase in weight, but that the data disclosed in Table 2 renders that feature obvious.

Applicant respectfully disagrees.

The single focus in Fukuhara, et al. is the mouse pad. Through the use of their novel mouse pad, Fukuhara, et al. assert that they can improve the controllability of a mouse serving as an input device through which data are input to a computer.

"Controllability" is the feature that Fukuhara et al. emphasize throughout the reference. In their discussion of the "Prior Art," Fukuhara, et al. explicate the construction of the typical mouse including body, cover and ball. They then explain that the mouse is used with a pad. At Column 1, lines 25 to 28 Fukuhara, et al. state:

"A mouse pad 9 has been widely used for improving the controllability of the mouse as shown in FIG. 18. The mouse pad 9 is formed from such a material as a rubber, resin, reinforced glass or the like."

The Fukuhara, et al. reference discloses at Column 1, lines 29 to 37 the problems with the use of certain materials as the pad:

"In the case of using the mouse pad formed from either a rubber or resin material, static electricity is generated between the mouse and the mouse pad, which causes the mouse pad to collect dust. Further the mouse pad is likely to collect tailing of a rubber eraser or a dirt. As being repeatedly used, the mouse pad surface is gradually scraped off and the resultant waste is collected by a roller part of a mouse. As the mouse becomes soiled due to spills, there is no practical method of cleaning it."

Fukuyama, et al. then proceed for the balance of Column 1 (lines 38 to 67) and a portion of Column 2 (lines 1 to 16) to explain that:

"A mouse pad formed from glass or a ground glass hardly causes the aforementioned problems such a static electricity nor dust collection."

The aforementioned disclosures by Fukuhara, et al. clearly refutes any assertion that the resin/rubber pads are equivalent to glass pads.

In addition to being formed from glass (preferably a crystallized glass, Column 3, lines 62 to 64) the Fukuhara, et al. mouse pad must have a rugged pattern surface having an average roughness ranging from 2 to 20 μ . The advantageous effect of their invention according to Fukuhara, et al. is that *"When the mouse ball is operated on this type of mouse pad (i.e.: glass) a frictional force generated therebetween serves to prevent the mouse ball from slipping."* See: Column 3, lines 27 - 29. The requirement that the pad be formed solely from glass having a predetermined surface configuration is found throughout the Fukuhara, et al. disclosure. These elements are defined specifically in the claims and thus form the very essence of the invention.

The Examiner states that it would have been obvious to the person skilled in the art at the time the instant invention was made to utilize the apparatus of Fukuhara, et al. and then add any percentage of weight to said mouse input member. The Examiner supports the assertion by stating that *"since frictional force always increases due to said addition of weight, it is a design of choice to select a given weight increase percentage."* (Citations to the reference omitted)

Applicant respectfully submits that the rejection is without foundation. To reiterate, the Fukuhara, et al. invention is clearly restricted to glass pads; and along with that restriction, there is a further restriction that the surface of the glass pad MUST have a rugged pattern surface having an average roughness ranging from 2 to 20 μ . Applicant's pad as now claimed is totally different, and there is no basis to assert that the properties possessed by the glass pad are equivalent to Applicant's. Fukuhara et al. themselves state in their disclosure that they are not the same for the reasons given above.

Applicant further submits that the specification of Fukuhara, et al. must be read carefully as it does not disclose what the Examiner is contending that it discloses.

Fukuhara et al. performed a series of comparative tests, the details of which are set forth in Columns 4 through 12. Of particular interest to the present invention is the data found in Table 2 of Fukuhara et al., since it was relied upon by the Examiner as the foundation for his rejection.

Fukuhara, et al. prepared a number of comparative samples which are identified in Columns 5 and 6 of the patent. The purpose of the test performed on the samples was to determine the frictional force between the mouse ball and the different types of mouse pads (E1, C1...C9) as indicated at Column 7, lines 20-21.

Fukuhara et al. state at Column 5, lines 15 to 33:

(Experiment 1) Each controllability of a mouse operated on each of the mouse pads as the sample E1 and comparative samples C1 to C9 was evaluated. The controllability of the mouse was defined by values of each frictional force generated between the mouse ball and the mouse pad and between the operation surface of the mouse body (except the mouse ball) and the mouse pad.

As the frictional force between the mouse ball and the mouse pad becomes larger, the mouse ball is enabled to rotate accompanied with the movement of the mouse more closely without slipping on the mouse pad.

As the frictional force between the operation surface of the mouse body and the mouse pad becomes larger, it becomes more difficult to control the mouse.

Therefore good controllability of the mouse is assumed to be obtained under such condition that the frictional force between the mouse ball and the mouse pad is large, and the frictional force between the operation surface of the mouse body and the mouse pad is small. "

The object of Table 2 was to measure and disclose the frictional force between mouse ball and mouse pad. The "frictional force" is defined by Fukuhara, et al. at Column 6, lines 62 - 67 which states:

The frictional force was defined by a tensile strength (g) [i.e., measured in grams] exerted to the frictional force measurement equipment during rotation of the mouse pad. The mouse ball weighed 38g. and the frictional force measurement equipment - except the stress sensor- weighed 30 g. resulting in a total weight of 68 g.

A description is also presented in the reference for measuring the frictional force between the operation surface of the mouse body and the mouse pad.

A weight of 300 g. was placed on the mouse body which weighed 38 g. so the total weight was 338 g. This weight was designed to represent the load experienced by the mouse as a result of the user's hand grasping the mouse. This weight is not the same as the weight added by Applicant to his mouse. For the sake of any testing in this field of endeavor, one must assume that the same 300 g. is also added to Applicant's mouse when it is used. That weight is a constant which is present regardless of which system is being used or tested.

The samples tested are E1-crystallized glass; C1-acrylic resin; C2-vinyl chloride; C3-rubber; C4 - C9 various glass compositions.

Table 2 provides the results of test. It is critical to understand exactly what the test results set forth in Table 2 demonstrate. Each sample, i.e., E1 and C1 - C9, with the 300 g. weight was placed on the mouse pad. The mouse pad was rotated with the mouse body and the weight kept fixed to a jig. The device used according to Fukuhara, et al. for measuring a frictional force between the mouse pad samples E1 and C1 to C9 and a mouse ball are depicted in Figures 4 - 6 of the drawings. The specific frictional force between the operation surface of the mouse body and the mouse pad was measured. "...As shown in Table 2, the frictional force between the mouse pad E1 and the mouse ball resulted in 63.7 g...." Column 7, lines 20-21. **The value of 63.7 grams is NOT the weight of the mouse.** (Emphasis added) As noted in the excerpt cited above, the mouse weighed 38 grams. Figures 7 to 16 depict graphical representations of the surface sample of the above-noted various mouse pads.

Applicant emphasizes that the results found in Table 2 of Fukuhara, et al. reflect frictional forces as defined by tensile strength measured in grams. The values presented do NOT reflect the weights of the various mouse units used in the testing process as the Examiner has asserted. Fukuhara, et al. do not disclose the addition of a separate weight to a mouse in their specification. Fukuhara, et al., as suggested by the Examiner, do not disclose different values of mouse weights in Table 2. These distinctions, plus the fact that the instant invention is limited to a non-glass pad clearly renders the present invention as non-obvious. The clear fact drawn from properly reading the Fukuhara et al. reference, is that contrary to what the Examiner is asserting,

Fukuhara, et al. does not disclose the addition of weight so the "design of choice" argument presented by the Examiner has no supporting basis.

Fukuhara, et al. reiterate that the invention is limited to glass pads where they state at Column 7, lines 59-65 that the plastic or rubber pads were not as effective as their E1 sample.

In the "Response to Arguments" section (page 8) of the Official Action, the Examiner states: *"As it can be clearly seen from the referred table 2, different weights of a mouse tested were in a range between 45.5g. and 105.3g. It is well within the range claimed by independent claims 20 and 21."* Again, the values of Table 2 are NOT the weights of the mouse samples. The values in Table 2 are measurements of frictional force as defined by tensile strength (g.) exerted to the frictional force measurement equipment during rotation of the mouse pad.

The Examiner continues in the Response to Arguments section stating:

"For instance, it would be obvious to one of ordinary skill in the art at the time when the invention was made that mouse weight in a sample C5 can be easily achieved by adding $(62.9 - 45.5)g = 17.4g$. of weight to the mouse in a sample C1, which will increase in mouse weight of $17.4/45.5 = 0.38$, i.e. 38%, which is within the range of 20 - 50 as claimed."

Applicant respectfully submits that the latter statement is clearly erroneous and is based upon a number of unwarranted assumptions. Beside the fact that the values presented in Table 2 which are designated as "mouse body" are not the actual weight of the mouse body, there is no explanation presented justifying why the C1 and C5 samples were arbitrarily selected and why the weights as presented in Table 2 should be subtracted and the percentage difference calculated and why C1 is the basis for calculating the percentage and not C5.

It is respectfully submitted that the support and logic for the obviousness rejection in the Response to Argument is severely flawed as the result of a misinterpretation of what the reference discloses.

In summary there is no suggestion, directly or indirectly in the Fukuhara, et al. reference that discloses the addition of the addition of a 20 - 50% increase in weight of said mouse input member, wherein said 20 - 50% increase in weight is in the range of 20 - 50 grams.

It is noted that Figure 19 of Fukuhara, et al. depicts a mouse which embodies the "Prior Art." Figure 3 of the present invention is a schematic side view of an embodiment of the present invention illustrating the addition of a weight increment in the mouse. These drawings graphically illustrate Applicant's invention. There is no weight depicted in the prior art mouse. Nor is there any suggestion in the text of Fukuhara, et al. to add a weight to the mouse to produce an added frictional force component operating to produce a drag component that dampens any forces that would tend to upset a selected mouse position.

The Examiner is respectfully requested to reconsider his rejection of Claims 9 and 16-17, under 35 U.S.C. §103(a) as being unpatentable over Fukuhara, et al. (U.S. Patent 5,776,585) in The Examiner is respectfully requested to reconsider his rejection of Claims 6-8, 10-11, 14-15 and 20-21 under 35 U.S.C. §103(a) as being unpatentable over Fukuhara, et al. (U.S. Patent 5,776,585) in view of Hawley (U.S. Patent 4,628,755).

Hawley discloses a mouse wherein a disk, shaft and wheel as component parts maintain contact with a surface. The "surface" not defined as being "glass" as required by Fukuhara, et al. The magnets are used to provide augmented force in the contact area.

As the Fukuhara, et al. reference is not applicable for the reasons stated above, which are hereby incorporated by reference herein, there is no proper basis for combining these references.

Fukuhara, et al. and Hawley, alone, or in combination, do not disclose or even imply the product of the present invention. In the rejection, the Examiner is selectively picking and choosing individual elements disclosed in the references to the exclusion of what the references as a whole teach to one skilled in the art.

In order to analyze the propriety of the Examiner's rejections in this case, a review of the pertinent applicable law relating to 35 U.S.C. § 103 is warranted. The Examiner has applied the two references discussed above using selective combinations to render obvious the invention.

The Court of Appeals for the Federal Circuit has set guidelines governing such application of references. These guidelines are, as stated are found in Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ, 543, 551:

When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than hindsight gleaned from the invention itself.

A representative case relying upon this rule of law is Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ 2d 1434 (Fed. Cir. 1988). The district court in Uniroyal found that a combination of various features from a plurality of prior art references suggested the claimed invention of the patent in suit. The Federal Circuit in its decision found that the district court did not show, however, that there was any teaching or suggestion in any of the references, or in the prior art as a whole, that would lead one with ordinary skill in the art to make the combination. The Federal Circuit opined:

Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. [837 F.2d at 1051, 5 USPQ 2d at 1438, citing Lindemann, 730 F.2d 1452, 221 USPQ 481, 488 (Fed. Cir. 1984).]

The Examiner in his application of the cited references is improperly picking and choosing. The rejection is a piecemeal construction of the invention. Such piecemeal reconstruction of the prior art patents in light of the instant disclosure is contrary to the requirements of 35 U.S.C. § 103.

The ever present question in cases within the ambit of 35 U.S.C. § 103 is whether the subject matter as a whole would have been obvious to one of ordinary skill in the art following the teachings of the prior art at the time the invention was made. It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. (Emphasis in original) In re Wesslau 147 U.S.P.Q. 391, 393 (CCPA 1965)

This holding succinctly summarizes the Examiner's application of references in this case, because the Examiner did in fact pick and choose so much of the references with to support the rejections and did not cover completely or accurately in the Office Action the full scope of what these varied disclosure references fairly suggest to one skilled in the art.

Further, the Federal Circuit has stated that the Patent Office bears the burden of establishing obviousness. It held this burden can only be satisfied by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the reference.

Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys., 732 F.2d at 1577, 221 USPQ at 933. [837 F.2d at 1075, 5 USPQ 2d at 1599.]

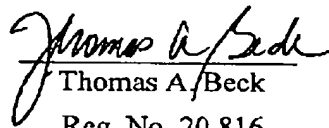
The court concluded its discussion of this issue by stating that teachings or references can be combined only if there is some suggestion or incentive to do so.

In the present case, the skilled artisan, viewing the references would not be directed toward Applicants device. There can reasonably be no system such as Applicant's emanating from the Fukuhara, et al. and Hawley references as the basic systems of the two references are different. There is no proper basis to combine them.

Applicants have attempted in this response to include language defining the weight and the mouse pad to specifically define the invention and to clear up any ambiguities that may have existed in the wording heretofore. Applicant believes that the amended claims are in a form which should result in their allowability. If the Examiner wishes to discuss via telephone, the substance of any of the proposed claims contained herein with the intent of putting them into an allowable form, Applicants' attorney will be glad to speak with him at a mutually agreeable time and will cooperate in any way possible.

In view of the arguments and modifications to the claims, allowance of this case is warranted. Such favorable action is respectfully solicited.

Respectfully submitted,


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I certify that this amendment is being telefaxed to (703) 872-9306 on the date shown below addressed to: *Assistant Commissioner of Patents,*
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